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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,599	06/26/2003	Naomichi Kobayashi	116211	2920

25944 7590 09/08/2004

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EXAMINER
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NOTE, JANIS L

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/603,599

Applicant(s)

KOBAYASHI ET AL.

Examiner

Janis L. Dote

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 2/20/04.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-22 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/15/03; 2/20/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. This application is in condition for allowance except for the formal matters set forth infra.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

2. The disclosure is objected to because of the following informalities:

There are numerous typographic errors throughout the specification. For example, at page 2, line 1, and at page 12, line 1, the typographic errors "furth r" and "polym r." These examples are not exhaustive. Applicants should review the entire specification.

Appropriate correction is required.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

In claims 6, 11, 15, 18, and 20, the recitation "the average particle size of the fine wax particle is 1  $\mu$ m or less" lacks antecedent basis in the specification.

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In claims 7, 12, 16, 19, 21, and 22, the recitation "a plurality of fine wax particles are incorporated in the polymer resin particle for use in the toner" lacks antecedent basis in the specification.

4. Claims 1-22 are allowable over the prior art of record.

The prior art of record does not teach or suggest the steps recited in the instant claims.

US 4,592,990 (Takagi), which is cited on the European Search Report filed by applicants on Feb. 20, 2004, discloses a method of making polymeric toner particles comprising the steps of: (1) dissolving a polar polymer and a paraffin wax in a styrene monomer to form a monomer composition; (2) dispersing said monomer composition in an aqueous solution comprising a dispersant that has a charging polarity opposite to the polar polymer; and (3) suspension polymerizing the dispersed monomer composition to form polymeric toner particles. See example 1B at col. 12. The method disclosed by Takagi does not comprise the steps of "dispersing fine wax particles less soluble to an organic solvent by using a polymeric dispersant into the organic solvent" and "dissolving one or more monomers for forming a polymer less soluble to the organic solvent" recited in the instant claims. Nor does Takagi disclose or suggest selecting a

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"wax ingredient forming the fine wax particles . . . such that a surface potential of the fine wax particles dispersed in the organic solvent shows a polarity opposite to a surface potential of the fine polymer particle" that is formed on the fine wax particle as recited in instant claim 1.

US 5,935,751 (Matsuoka) discloses a method of making polymeric toner particles comprising the steps of:

- (1) dissolving a wax in toluene by heat and then cooling the heated solution while agitating to precipitate wax microparticles to form a wax dispersion;
- (2) mixing the wax dispersion with a polyester resin to form an oil-phase;
- (3) dispersing the oil-phase in an aqueous solution comprising a dispersant to form toner particles. See example 1 at cols. 17-19.

Matsuoka also discloses a method comprising the steps of: (1) preparing an oil-phase by mixing a styrene monomer with a wax; (2) dispersing said oil-phase in an aqueous solution to form dispersed particles; and (3) suspension polymerizing the dispersed particles to form toner particles. See example 8 at cols. 22-23. The methods disclosed by Matsuoka do not comprise the step of "dispersing fine wax particles less soluble to an organic solvent by using a polymeric dispersant into the organic solvent." Nor does Matsuoka disclose or suggest selecting a "wax ingredient forming the fine wax particles . . . such that a

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surface potential of the fine wax particles dispersed in the organic solvent shows a polarity opposite to a surface potential of the fine polymer particle" that is formed on the fine wax particle as recited in instant claim.

US 4,535,049 (Honda) discloses a method of making polymeric toner particles comprising the steps of: (1) dissolving a wax in toluene by heat and then cooling the heated solution while agitating to precipitate the wax to form a wax emulsion; (2) adding a styrene monomer and an acrylate monomer to the wax emulsion; (3) solution polymerizing the mixture of step (2) to obtain a composite polymer; (4) removing and washing the composite polymer formed in step (3); (5) the mixing the resulting composite polymer with a colorant in a melt-knead method; and (6) cooling and pulverizing the resulting melt-kneaded mixture to obtain toner particles. See example 1 at cols. 9-10. The method disclosed by Honda does not comprise the step of "dispersing fine wax particles less soluble to an organic solvent by using a polymeric dispersant into the organic solvent." Nor does Honda disclose or suggest selecting a "wax ingredient forming the fine wax particles . . . such that a surface potential of the fine wax particles dispersed in the organic solvent shows a polarity opposite to a surface potential

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of the fine polymer particle" that is formed on the fine wax particle as recited in instant claim 1.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (703) 872-9306.

Any inquiry of papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLD  
Sep. 2, 2004

*Janis L. Dote*  
JANIS L. DOTE  
PRIMARY EXAMINER  
GROUP 1700  
1700